



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2018-0509; Product Identifier 2017-NM-076-AD]

RIN 2120-AA64

Airworthiness Directives; Embraer S.A. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain Embraer S.A. Model ERJ 190 airplanes. This proposed AD was prompted by reports of bushing migration and loss of nut torque on the engine pylon lower inboard and outboard link fittings. This proposed AD would require modification of the attaching parts of the left-hand (LH) and right-hand (RH) pylon lower link fittings, inboard and outboard positions. We are proposing this AD to address the unsafe condition on these products.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Embraer S.A., Technical Publications Section (PC 060), Av. Brigadeiro Faria Lima, 2170 - Putim - 12227-901 São Jose dos Campos - SP – Brazil; telephone: +55 12 3927-5852 or +55 12 3309-0732; fax: +55 12 3927-7546; email: distrib@embraer.com.br; Internet: <http://www.flyembraer.com>. You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0509; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Krista Greer, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3221.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2018-0509; Product Identifier 2017-NM-076-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. We will consider all comments received by the closing date and may amend this NPRM based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this NPRM.

Discussion

Agência Nacional de Aviação Civil (ANAC), which is the aviation authority for Brazil, has issued Brazilian AD 2017-04-01, effective April 25, 2017 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Embraer S.A. Model ERJ 190 airplanes. The MCAI states:

This [Brazilian] AD was prompted by reports of bushing migration and loss of nut torque on the engine pylon lower

inboard and outboard link fittings. We are issuing this [Brazilian] AD to prevent loss of integrity of the engine pylon lower link fittings, which could result in separation of the engine from the wing.

This [Brazilian] AD requires modifications of the attaching parts of the left handle (LH) and right handle (RH) pylon lower link fittings, inboard and outboard positions.

You may examine the MCAI in the AD docket on the Internet at

<http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0509.

Related Service Information under 1 CFR part 51

Embraer S.A. has issued Embraer Service Bulletin 190-54-0016, Revision 04, dated December 7, 2017; and Embraer Service Bulletin 190LIN-54-0008, Revision 02, dated May 9, 2018. The service information describes procedures for modification of the attaching parts of the LH and RH pylon lower link fittings, inboard and outboard positions. These documents are distinct since they apply to different airplane models. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA's Determination and Requirements of this Proposed AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type designs.

Costs of Compliance

We estimate that this proposed AD affects 85 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Modification	Up to 270 work-hours X \$85 per hour = \$22,950	\$3,200	Up to \$26,150	Up to \$2,222,750

According to the manufacturer, some of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all available costs in our cost estimate.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This proposed AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes to the Director of the System Oversight Division.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Embraer S.A.: Docket No. FAA-2018-0509; Product Identifier 2017-NM-076-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD affects AD 2014-16-16, Amendment 39-17940 (79 FR 48018, August 15, 2014) (“AD 2014-16-16”).

(c) Applicability

This AD applies to the Embraer S.A. airplanes identified in paragraphs (c)(1) and (c)(2) of this AD, certificated in any category.

(1) Model ERJ 190-100 STD, -100 LR, and -100 IGW airplanes; and Model ERJ 190-200 STD, -200 LR, and -200 IGW airplanes; as identified in Embraer Service Bulletin 190-54-0016, Revision 04, dated December 7, 2017.

(2) Model ERJ 190-100 ECJ airplanes as identified in Embraer Service Bulletin 190LIN-54-0008, Revision 02, dated May 9, 2018.

(d) Subject

Air Transport Association (ATA) of America Code 54, Nacelles/pylons.

(e) Reason

This AD was prompted by reports of bushing migration and loss of nut torque on the engine pylon lower inboard and outboard link fittings. We are issuing this AD to prevent loss of integrity of the engine pylon lower link fittings, and possibly resulting in separation of the engine from the wing.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Definitions

(1) Group 1 airplanes are defined as: Serial numbers 19000002, 19000004, 19000006 through 19000108 inclusive, 19000110 through 19000139 inclusive, 19000141 through 19000158 inclusive, 19000160 through 19000176 inclusive, 19000178 through 19000202 inclusive, 19000204 through 19000224 inclusive, 19000226 through 19000235 inclusive, 19000237 through 19000242 inclusive, 19000244 through 19000260 inclusive, 19000262 through 19000277 inclusive, 19000279 through 19000295 inclusive, 19000297 through 19000306 inclusive, 19000308 through 19000316 inclusive, 19000318 through 19000361 inclusive, 19000363 through 19000437 inclusive, 19000439 through 19000452 inclusive, 19000454 through 19000466 inclusive, 19000468 through 19000525 inclusive, 19000527 through 19000533 inclusive, 19000535 through 19000558 inclusive, 19000560

through 19000570 inclusive, 19000572 through 19000610 inclusive, 19000612 through 19000631 inclusive, and 19000633 through 19000636 inclusive.

(2) Group 2 airplanes are defined as: Serial numbers 19000637 through 19000640 inclusive, 19000642 through 19000655 inclusive, 19000657 through 19000682 inclusive, 19000684 through 19000686 inclusive, 19000688, 19000689, and 19000692 through 19000694 inclusive.

(h) Left-Hand (LH) Pylon Lower Link Fitting Attaching Parts Modification

(1) For Group 1 airplanes as identified in paragraph (g)(1) of this AD: Within 15,000 flight hours or 48 months after the effective date of this AD, whichever occurs later, replace the plain bushings of the lower inboard and outboard link fittings, install the lock washers with the L-profile on the fuse pin's head side, and replace the internal shear pin of the fuse pins with new ones having larger head diameter, in accordance with "PART I" of the Accomplishment Instructions of Embraer Service Bulletin 190-54-0016, Revision 04, dated December 7, 2017.

(2) For Group 2 airplanes as identified in paragraph (g)(2) of this AD: Within 15,000 flight hours or 48 months after the effective date of this AD, whichever occurs later, replace the internal shear pin of the fuse pins with new ones having larger head diameter, in accordance with "PART I" of the Accomplishment Instructions of Embraer Service Bulletin 190-54-0016, Revision 04, dated December 7, 2017.

(3) For airplanes identified as Group 1 in Embraer Service Bulletin 190LIN-54-0008, Revision 02, dated May 9, 2018: Within 48 months after the effective date of this AD, replace the plain bushings of the lower inboard and outboard link

fittings, install the lock washers with the L-profile on the fuse pin's head side, and replace the internal shear pin of the fuse pins with new ones having larger head diameter, in accordance with "PART I" of the Accomplishment Instructions of Embraer Service Bulletin 190LIN-54-0008, Revision 02, dated May 9, 2018.

(4) For airplanes identified as Group 2 in Embraer Service Bulletin Embraer Service Bulletin 190LIN-54-0008, Revision 02, dated May 9, 2018: Within 48 months after the effective date of this AD, replace the internal shear pin of the fuse pins with new ones having larger head diameter, in accordance with "PART I" of the Accomplishment Instructions of Embraer Service Bulletin 190LIN-54-0008, Revision 02, dated May 9, 2018.

(i) Right-Hand (RH) Pylon Lower Link Fitting Attaching Parts Modification

(1) For Group 1 airplanes as identified in paragraph (g)(1) of this AD: Within 15,000 flight hours or 48 months after the effective date of this AD, whichever occurs later, replace the plain bushings of the lower inboard and outboard link fittings, install the lock washers with the L-profile on the fuse pin's head side, and replace the internal shear pin of the fuse pins with new ones having larger head diameter, in accordance with "PART II" of the Accomplishment Instructions of Embraer Service Bulletin 190-54-0016, Revision 04, dated December 7, 2017.

(2) For Group 2 airplanes as identified in paragraph (g)(2) of this AD: Within 15,000 flight hours or 48 months after the effective date of this AD, whichever occurs later, replace the internal shear pin of the fuse pins with new ones having larger head

diameter, in accordance with “PART II” of the Accomplishment Instructions of Embraer Service Bulletin 190-54-0016, Revision 04, dated December 7, 2017.

(3) For airplanes identified as Group 1 in Embraer Service Bulletin Embraer Service Bulletin 190LIN-54-0008, Revision 02, dated May 9, 2018: Within 48 months after the effective date of this AD, replace the plain bushings of the lower inboard and outboard link fittings, install the lock washers with the L-profile on the fuse pin’s head side, and replace the internal shear pin of the fuse pins with new ones having larger head diameter, in accordance with “PART II” of the Accomplishment Instructions of Embraer Service Bulletin 190LIN-54-0008, Revision 02, dated May 9, 2018.

(4) For airplanes identified as Group 2 in Embraer Service Bulletin Embraer Service Bulletin 190LIN-54-0008, Revision 02, dated May 9, 2018: Within 48 months after the effective date of this AD, replace the internal shear pin of the fuse pins with new ones having larger head diameter, in accordance with “PART II” of the Accomplishment Instructions of Embraer Service Bulletin 190LIN-54-0008, Revision 02, dated May 9, 2018.

(j) Terminating Action for AD 2014-16-16

(1) Accomplishing the actions required by paragraph (h)(1) or (h)(2) of this AD, as applicable, terminates the requirements of paragraphs (g)(1), (h)(1), and (i)(1) of AD 2014-16-16 for that LH pylon lower link fitting.

(2) Accomplishing the actions required by paragraph (h)(3) or (h)(4) of this AD, as applicable, terminates the requirements of paragraphs (g)(2), (h)(2), and (i)(2) of AD 2014-16-16 for that LH pylon lower link fitting.

(3) Accomplishing the actions required by paragraph (i)(1) or (i)(2) of this AD, as applicable, terminates the requirements of paragraphs (g)(1), (h)(1), and (i)(1) of AD 2014-16-16 for that RH pylon lower link fitting.

(4) Accomplishing the actions required by paragraph (i)(3) or (i)(4) of this AD, as applicable, terminates the requirements of paragraphs (g)(2), (h)(2), and (i)(2) of AD 2014-16-16 for that RH pylon lower link fitting.

(k) Credit for Previous Actions

(1) This paragraph provides credit for actions required by paragraphs (h)(1), (h)(2), (i)(1), and (i)(2) of this AD, if those actions were performed before the effective date of this AD using Embraer Service Bulletin 190-54-0016, dated September 22, 2015; Embraer Service Bulletin 190-54-0016, Revision 01, dated January 18, 2016; Embraer Service Bulletin 190-54-0016, Revision 02, dated September 12, 2016; or Embraer Service Bulletin 190-54-0016, Revision 03, dated May 18, 2017.

(2) This paragraph provides credit for actions required by paragraphs (h)(3), (h)(4), (i)(3), and (i)(4) of this AD, if those actions were performed before the effective date of this AD using Embraer Service Bulletin 190LIN-54-0008, dated October 2, 2015; Embraer Service Bulletin 190LIN-54-0008, Revision 01, dated April 13, 2017.

(l) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Section, Transport Standards Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with

14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Section, send it to the attention of the person identified in paragraph (m)(2) of this AD. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or the Agência Nacional de Aviação Civil (ANAC); or ANAC's authorized Designee. If approved by the ANAC Designee, the approval must include the Designee's authorized signature.

(3) Required for Compliance (RC): For service information that contains steps that are labeled as RC, the provisions of paragraphs (1)(3)(i) and (1)(3)(ii) of this AD apply.

(i) The steps labeled as RC, including substeps under an RC step and any figures identified in an RC step, must be done to comply with the AD. If a step or substep is labeled "RC Exempt," then the RC requirement is removed from that step or substep. An AMOC is required for any deviations to RC steps, including substeps and identified figures.

(ii) Steps not labeled as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the RC steps, including substeps and identified figures, can still be done as specified, and the airplane can be put back in an airworthy condition.

(m) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Brazilian AD 2017-04-01, effective April 25, 2017; for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0509.

(2) For more information about this AD, contact Krista Greer, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3221.

(3) For service information identified in this AD, contact Embraer S.A., Technical Publications Section (PC 060), Av. Brigadeiro Faria Lima, 2170 - Putim - 12227-901 São Jose dos Campos - SP – Brazil; telephone: +55 12 3927-5852 or +55 12 3309-0732; fax: +55 12 3927-7546; email: distrib@embraer.com.br; Internet: <http://www.flyembraer.com>. You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Issued in Des Moines, Washington, on May 31, 2018.

Michael Kaszycki,
Acting Director,
System Oversight Division,
Aircraft Certification Service.

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